

CLAIMS

What is claimed is:

1. A fault tolerant transmission device for an information processing system with a first independent system and a second independent system, which comprises:

a server, which is connected to the first independent system and the second independent system for sending an enable signal when any of the independent systems has errors and cannot transmit data; and

a connecting system, which is connected to the first independent system and the second independent system for transmitting data that are unable to be transmitted by the independent system with errors through the connecting system and the other independent system after the enable signal is received.

2. The device of claim 1, wherein the first independent system further comprises:

a first control unit, which controls the data transmission of the first independent system;

a first connecting unit, which is connected to the first control unit for receiving commands from the first control unit and is connected to the server for receiving the enable signal and transmitting the enable signal to the connecting system;

a first transmission unit, which is connected to the first connecting unit for transmitting data of the first independent system, is connected to the connecting system, and simultaneously transmits data of the first independent system and the second independent system when the second independent system has errors; and

a first storage unit, which is connected to the first transmission unit for storing

data of the first independent system.

3. The device of claim 2, wherein the first transmission unit is a SCSI (small computer system interface) bus.

4. The device of claim 2, wherein the first connecting unit is a SCSI (small computer system interface) connector.

5. The device of claim 2, wherein the first storage unit further contains at least one hard disk drive.

6. The device of claim 1, wherein the second independent system further comprises:

a second control unit, which controls the data transmission of the second independent system;

a second connecting unit, which is connected to the second control unit for receiving commands from the second control unit and is connected to the server for receiving the enable signal and transmitting the enable signal to the connecting system;

a second transmission unit, which is connected to the second connecting unit for transmitting data of the second independent system, is connected to the connecting system, and simultaneously transmits data of the second independent system and the second independent system when the first independent system has errors; and

a second storage unit, which is connected to the second transmission unit for storing data of the second independent system.

7. The device of claim 6, wherein the second transmission unit is a SCSI (small computer system interface) bus.

8. The device of claim 6, wherein the second connecting unit is a SCSI (small computer system interface) connector.

9. The device of claim 6, wherein the second storage unit further contains at least one hard disk drive.

5 10. The device of claim 1, wherein the connecting system is a SCSI bus bridge.

11. The device of claim 1, wherein the connecting system is a SCSI bus expander.

12. The device of claim 1, wherein the server is further installed with a GPIO (general purpose input/output) interface for connecting the first connecting unit and the second connecting unit.

10 13. A fault tolerant transmission method for an information processing system with a first independent system and a second independent system, which comprises the steps of:

providing a fault tolerant mechanism when the information processing system is functioning;

15 recording data of the first independent system and the second independent system in a memory unit;

independently transmitting data in the first independent system and the second independent system;

the information processing system monitoring when any of the independent systems has errors and does not function correctly;

20 sending data of the independent system with errors along with a combination message to the other independent system;

starting the fault tolerant transmission mechanism and notifying a user through the information processing system; and

the normally functioning independent system temporarily completing transmission jobs before the independent system with errors is repaired.

14. The method of claim 13, wherein the memory unit is an MOS (metal oxide semiconductor).

5 15. The method of claim 13, wherein the memory unit is an NVRAM (non-volatile random access memory).